

June 23, 2005

Dr. Arden L. Bement, Jr.  
Director  
National Science Foundation  
4201 Wilson Blvd.  
Arlington, Virginia 22230

Dear Dr. Bement:

Questions have been raised, according to a February 14, 2005 article in *The Wall Street Journal*, about the significance of methodological flaws and data errors in studies by Dr. Michael Mann and co-authors of the historical record of temperatures and climate change. We understand that these studies of temperature proxies (tree rings, ice cores, corals, etc.) formed the basis for a new finding in the 2001 United Nation's Intergovernmental Panel on Climate Change (IPCC) Third Assessment Report (TAR). This finding – that the increase in 20<sup>th</sup> century northern hemisphere temperatures is “likely to have been the largest of any century during the past 1,000 years” and that the “1990s was the warmest decade and 1998 the warmest year” – has since been referenced widely and has become a prominent feature of the public debate surrounding climate change policy.

However, in recent peer-reviewed articles in *Science*, *Geophysical Research Letters*, *Energy & Environment*, among others, researchers question the results of this work. As these researchers find, based on the available information, the conclusions concerning temperature histories – and hence whether warming in the 20<sup>th</sup> century is actually unprecedented – cannot be supported by the Mann *et. al.* studies. In addition, we understand from the February 14 *Journal* and these other reports that researchers have failed to replicate the findings of these studies, in part because of problems with the underlying data and the calculations used to reach the conclusions. Questions have also been raised concerning the sharing and dissemination of the data and methods used to perform the studies. For example, according to the January 2005 *Energy & Environment*, the information necessary to replicate the analyses in the studies has not been made fully available to researchers upon request. According to the article, the authors' requests for National Science Foundation assistance to obtain this information have been turned down.

The concerns surrounding these studies reflect upon the quality and transparency of federally funded research and of the IPCC review process – two matters of particular interest to the Committee. For example, one concern relates to whether IPCC review has been sufficiently independent. We understand that Dr. Michael Mann, the lead author of the studies in question, was also a lead author of the IPCC chapter that assessed and reported this very same work, and that two co-authors of the studies were also contributing authors to the same chapter. Given the prominence these studies were accorded in the IPCC TAR, we seek to learn more about the facts and circumstances that led to acceptance and prominent use of this work in the IPCC TAR and to understand what this controversy indicates about the data quality of key IPCC studies.

As you know, sharing data and research results is a basic tenet of open scientific inquiry, providing a means to judge the reliability of scientific claims. The ability to replicate a study, as the National Research Council has noted, is typically the gold standard by which the reliability of claims is judged. Given the questions reported about data access surrounding these studies, we also seek to learn whether obligations concerning the sharing of information developed or disseminated with the support of your agency have been appropriately met.

In light of the Committee's jurisdiction over energy policy and certain environmental issues, the Committee must have full and accurate information when considering matters relating to climate change policy. We open this review because the dispute surrounding these studies bears directly on important questions about the federally funded work upon which climate studies rely and the quality and transparency of analyses used to support the IPCC assessment process. With the IPCC currently working to produce a fourth assessment report, addressing questions of quality and transparency in the underlying analyses supporting that assessment, both scientific and economic, are of utmost importance if Congress is eventually going to make policy decisions drawing from this work.

To assist us as we begin this review, and pursuant to Rules X and XI of the U.S. House of Representatives, please provide the following information requested below on or before July 11, 2005:

1. Explain in detail your policies and procedures regarding the disclosure and dissemination of scientific data obtained with federal funds and grants, including, but not limited to: (a) a copy of all such applicable policies and internal guidance relating to implementation of such policies, (b) the obligations of universities, individuals, and other funding recipients regarding these policies, (c) the agency departments and individuals charged with ensuring such policies are implemented, and (d) the steps your agency takes to ensure these policies are implemented.
2. List all grants and all other funding awards given for research in the area of climate or paleoclimate research, including, but not limited to, the dates of the awards, the identity of the recipients, principal investigators, and whoever is contractually obligated to ensure provisions of the awards are met.
3. Explain how NSF ensures compliance with award provisions.

4. In the area of climate or paleoclimate research, are you aware of any violation of requirements or obligations concerning the sharing and dissemination of data and research, pursuant to applicable agency and federal policies? If so, describe each violation.
5. Have you received any requests for access to the research or data in studies conducted by Mann *et. al.*, cited in the IPCC Third Assessment Report? If so, identify and provide all records relating to such requests.
6. Describe in detail how your agency has supported or disseminated the information developed in the Mann *et. al.* studies.
7. Does your agency consider the IPCC review and writing process for the TAR to be consistent with your agency's policies or guidelines relating to information or data quality? Explain where the review and writing process is consistent or inconsistent in this regard.

Please note that, for the purpose of responding to this request, the applicable time period is 1995 to present. The terms “records” and “relating” should be interpreted in accordance with the attachment to this letter.

Thank you for your assistance. If you have any questions, please contact Peter Spencer of the Majority Committee staff at (202) 226-2424.

Sincerely,

Joe Barton  
Chairman

Ed Whitfield  
Chairman  
Subcommittee on Oversight  
and Investigations

cc: The Honorable John Dingell, Ranking Member  
The Honorable Bart Stupak, Ranking Member,  
Subcommittee on Oversight and Investigations

Attachment

## **ATTACHMENT**

1. The term “records” is to be construed in the broadest sense and shall mean any written or graphic material, however produced or reproduced, of any kind or description, consisting of the original and any non-identical copy (whether different from the original because of notes made on or attached to such copy or otherwise) and drafts and both sides thereof, whether printed or recorded electronically or magnetically or stored in any type of data bank, including, but not limited to, the following: correspondence, memoranda, records, summaries of personal conversations or interviews, minutes or records of meetings or conferences, opinions or reports of consultants, projections, statistical statements, drafts, contracts, agreements, purchase orders, invoices, confirmations, telegraphs, telexes, agendas, books, notes, pamphlets, periodicals, reports, studies, evaluations, opinions, logs, diaries, desk calendars, appointment books, tape recordings, video recordings, e-mails, voice mails, computer tapes, or other computer stored matter, magnetic tapes, microfilm, microfiche, punch cards, all other records kept by electronic, photographic, or mechanical means, charts, photographs, notebooks, drawings, plans, inter-office communications, intra-office and intra-departmental communications, transcripts, checks and canceled checks, bank statements, ledgers, books, records or statements of accounts, and papers and things similar to any of the foregoing, however denominated.
2. The terms “relating,” “relate,” or “regarding” as to any given subject means anything that constitutes, contains, embodies, identifies, deals with, or is in any manner whatsoever pertinent to that subject, including but not limited to records concerning the preparation of other records.